

REMARKS

In the final Office Action, the Examiner maintained the rejection of claims 1, 2, and 6-10 under 35 U.S.C. § 102(e) as anticipated by CONKLIN et al. (U.S. Patent No. 6,363,378), and the rejection of claims 3-5 and 11-22 under 35 U.S.C. § 103(a) as unpatentable over CONKLIN et al. in view of CHAKRABARTI et al. (U.S. Patent No. 6,356,899). Applicants respectfully traverse these rejections.

By the present amendment, Applicants propose adding new claim 23.

As pointed out in Applicants' response, filed January 16, 2003, Applicants filed an Information Disclosure Statement on September 24, 2001 that included four documents. The Examiner, however, failed to acknowledge that one of the documents submitted with the Information Disclosure Statement, namely D. Koller and M. Sahami, "Hierarchically Classifying Documents Using Very Few Words," International Conference on Machine Learning, 1997, pp. 170-178, was considered. Applicants again request that the Examiner properly consider this document, initial the attached Form-1449, and return a copy of the initialed Form-1449 to Applicants.

Claims 1, 2, and 6-10 were rejected under 35 U.S.C. § 102(e) as allegedly anticipated by CONKLIN et al. Applicants continue to traverse this rejection.

A proper rejection under 35 U.S.C. § 102 requires that a single reference teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present. See M.P.E.P. § 2131. CONKLIN et al. does not teach every aspect of Applicants' invention recited in claims 1, 2, and 6-10.

Independent claim 1, for example, includes a combination of features, including receiving a search query, retrieving one or more objects in response to the search query, determining whether the search query corresponds to at least one query theme of a group of query themes, ranking the one or more objects based on a result of the determination, and providing the ranked one or more objects. CONKLIN et al. does not disclose or suggest this combination of features.

For example, CONKLIN et al. does not disclose determining whether the search query corresponds to at least one query theme of a group of query themes and ranking one or more objects based on a result of the determination. The Examiner relied on col. 3, lines 25-30, and col. 4, lines 1-8, of CONKLIN et al. for allegedly disclosing determining whether the search query corresponds to at least one query theme of a group of query themes and, for the first time in the final Office Action, on col. 1, lines 34-50, of CONKLIN et al. for allegedly disclosing ranking one or more objects based on a result of the determination (final Office Action, pp. 2-3). Applicants submit that these sections of CONKLIN et al. do not disclose these features of claim 1.

Col. 3, lines 25-30, of CONKLIN et al. discloses:

In one embodiment, to process the query, the information retrieval system selects a plurality of documents relevant to said query, and then selects one or more themes from said documents, wherein said themes define at least a portion of the thematic content of said documents. Thus, for this embodiment, the topics are the themes from the document hit list.

This section of CONKLIN et al. does not disclose or suggest determining whether the search query corresponds to at least one query theme of a group of query themes. Instead, this section of CONKLIN et al. discloses that a plurality of documents is selected

that is relevant to a user query and then one or more themes are selected from the documents. One skilled in the art would appreciate that this is quite different from determining whether a search query corresponds to at least one query theme from a group of query themes.

Col. 4, lines 1-8, of CONKLIN et al. discloses:

For theme queries, the query processing 175 processes the input user query to identify the thematic content of the query. Specifically, a content processing system 110 (FIG. 7) analyzes the words or terms in the query to generate a query theme vector. In general, the query theme vector presents a thematic profile of the content in the query. A further discussion of theme vectors is described more fully below in the section "Content Processing System."

This section of CONKLIN et al. discloses the generation of a query theme vector based on terms in a theme query. CONKLIN et al. does not disclose or suggest, however, that, in response to a theme query, the CONKLIN et al. system ranks one or more objects based on the theme vector. In fact, this section of CONKLIN et al. seems to disclose that the result of a theme query is simply the query theme vector.

CONKLIN et al. discloses query processing 175 processing theme queries and text queries (col. 3, lines 66-67). As set forth above, for a theme query, a content processing system 110 analyzes the terms in the query and generates a query theme vector in response thereto (col. 4, lines 1-6). For a text query, on the other hand, CONKLIN et al. discloses that query processing 175 does not analyze the text in the query to ascertain the thematic content, but rather uses the query terms to process the query (col. 4, lines 9-12). CONKLIN et al. does not disclose or suggest, with respect to the theme queries or text queries, determining whether the search query corresponds to at

least one query theme of a group of query themes AND ranking one or more objects based on a result of the determination, as required by Applicants' claim 1.

The Examiner further alleged with respect to this feature that "Conklin et al. teaches 1) determining whether the search query corresponds to at least one query theme of a group of query themes because he teaches both theme and text queries, so determining whether the search query corresponds to at least one query theme is implied" and pointed to col. 3, line 65 to col. 4, line 8, of CONKLIN et al. for support (final Office Action, pg. 16). Applicants disagree with the Examiner's interpretation of the CONKLIN et al. disclosure.

Col. 3, line 65 to col. 4, line 8, of CONKLIN et al. discloses that query processing 175 processes theme queries and text queries. The mere fact that CONKLIN et al. discloses the ability to conduct text queries and theme queries in no way implies that the CONKLIN et al. system determines whether a search query corresponds to at least one query theme from a group of query themes, as recited in Applicants' claim 1. The Examiner failed to explain how this feature of claim 1 can in any way be implied from this section of the CONKLIN et al. disclosure. As such, the Examiner has failed to establish a *prima facie* basis for denying patentability of claim 1.

Col. 1, line 34-50, of CONKLIN et al. discloses:

One method of evaluating the effectiveness of information retrieval systems involves the use of recall-precision graphs. A recall-precision graph shows that recall and precision are inversely related. Thus, when precision goes up recall typically goes down and vice-versa. Although the goal of information retrieval systems is to maximize precision and recall, most existing information retrieval systems offer a trade-off between these two goals. For certain users, high recall is critical. These users seldom have means to retrieve more relevant information easily. Typically, as a

first choice, a user seeking high recall may expand their search by broadening a narrow boolean query or by looking further down a ranked list of retrieved documents. However, this technique typically results in wasted effort because a broad boolean search retrieves too many unrelated documents, and the tail of a ranked list of documents contains documents least likely to be relevant to the query.

This section of CONKLIN et al. discloses the relationship between recall and precision in information retrieval systems. This section of CONKLIN et al. in no way discloses or suggests ranking one or more objects based on a result of determining whether a search query corresponds to at least one query theme of a group of query themes, as required by Applicants' claim 1.

CONKLIN et al. does not further disclose providing the ranked one or more objects, as also recited in Applicants' claim 1. The Examiner relied, for the first time in the final Office Action, on col. 1, lines 34-50, of CONKLIN et al. for allegedly disclosing this feature (final Office Action, pg. 3). This section of CONKLIN et al., however, does not disclose or suggest this feature of claim 1.

As set forth above, col. 1, lines 34-50, of CONKLIN et al. discloses the relationship between recall and precision in information retrieval systems. While this section of CONKLIN et al. discloses providing a ranked list of documents to a user, this section of CONKLIN et al. does not disclose or suggest that the ranked list is formed based on a result of determining whether a search query corresponds to at least one query theme of a group of query themes, as required by Applicants' claim 1.

Since, as set forth above, CONKLIN et al. fails to disclose determining whether the search query corresponds to at least one query theme of a group of query themes, ranking one or more objects based on a result of the determination, and providing the

ranked one or more objects, Applicants respectfully submit that the rejection of claim 1 under 35 U.S.C. § 102(e) as anticipated by CONKLIN et al. should be reconsidered and withdrawn.

For at least the foregoing reasons, Applicants submit that claim 1 is not anticipated by CONKLIN et al.

Claims 2, 6, and 7 depend from claim 1. Therefore, these claims are not anticipated by CONKLIN et al. for at least the reasons given above with respect to claim 1. Moreover, these claims recite additional features not disclosed by CONKLIN et al.

For example, claim 2 recites that the objects include web pages. The Examiner relied on col. 2, lines 10-11, of CONKLIN et al. for allegedly disclosing this feature (final Office Action, pg. 3). Applicants submit that this section of CONKLIN et al. does not disclose or suggest the recited feature.

Col. 2, lines 10-11, of CONKLIN et al. corresponds to the background section of CONKLIN et al. and discloses "[a]n on-line world wide web surfer is an example of such a user." While this background section of CONKLIN et al. uses the phrase "world wide web," this section of CONKLIN et al. does not disclose or suggest that CONKLIN et al.'s information retrieval system 100 retrieves and ranks web pages.

The Examiner further alleged with respect to this feature that "Conklin et al. teaches ... the objects include web pages because a user is surfing the web in the disclosure" (final Office Action, pg. 16). Applicants disagree.

Contrary to the Examiner's allegation, CONKLIN et al. does not disclose or suggest a user of CONKLIN et al.'s information retrieval system 100 surfing the web. In

fact, CONKLIN et al. specifically discloses that the retrieved documents include articles, books, or periodicals (col. 4, lines 26-28). CONKLIN et al. does not disclose or suggest retrieving one or more web pages in response to a search query.

For at least these additional reasons, Applicants submit that claim 2 is not anticipated by CONKLIN et al.

Claim 6 recites determining whether the search query corresponds to a query rule associated with each query theme. The Examiner relied, for the first time in the final Office Action, on col. 4, lines 1-20, of CONKLIN et al. for allegedly disclosing this feature (final Office Action, pg. 3). Applicants submit that this section of CONKLIN et al. in no way relates to the recited query rule.

Col. 4, lines 1-20, of CONKLIN et al. discloses:

For theme queries, the query processing 175 processes the input user query to identify the thematic content of the query. Specifically, a content processing system 110 (FIG. 7) analyzes the words or terms in the query to generate a query theme vector. In general, the query theme vector presents a thematic profile of the content in the query. A further discussion of theme vectors is described more fully below in the section "Content Processing System."

For text queries, the query processing 175 does not analyze the text to ascertain the thematic content (i.e., identify themes), but instead uses the query terms, and their linguistic variants, to process the query. To process text queries, the information retrieval system utilizes normalization processing 120 (FIG. 7). In normalization processing 120, information is extracted from morphology section 770 (FIG. 7) to identify the linguistic variants for the terms in the input query. The normalization processing 120 and morphology section 770 is described more fully below in the section "Content Processing System."

This section of CONKLIN et al. discloses the processing of theme queries and text queries. This section of CONKLIN et al. does not disclose or suggest, however, that the

processing of theme queries or text queries includes determining whether the search query corresponds to a query rule associated with each query theme, as recited in Applicants' claim 6.

The Examiner further alleged with respect to this feature that "query rule reads on uses the query terms and its linguistic variant to process the query" (final Office Action, pg. 3) and "query processing a set of rules uses a set of rules to find the query terms and its linguistic variant" (final Office Action, pg. 16). Applicants submit that the Examiner has misinterpreted the feature recited in Applicants' claim 6.

As set forth above, claim 6 recites determining whether the search query corresponds to a query rule associated with each query theme. The Examiner's allegations regarding how text queries are processed in CONKLIN et al. fail to address the feature recited in Applicants' claim 6. That is, the mere fact that CONKLIN et al. discloses that text queries are processed by query processing 175 by using the query terms and their linguistic variants in no way relates to determining whether a search query corresponds to a query rule that is associated with a query theme.

For at least these additional reasons, Applicants submit that claim 6 is not anticipated by CONKLIN et al.

Independent claims 8-10 include features similar to those described above with respect to claim 1. Therefore, Applicants submit that claims 8-10 are not anticipated by CONKLIN et al. for reasons similar to those given above with respect to claim 1.

Claims 3-5 and 11-22 were rejected under 35 U.S.C. § 103(a) as unpatentable over CONKLIN et al. in view of CHAKRABARTI et al. Applicants continue to traverse this rejection.

Claims 3-5 depend from claim 1. Applicants submit that the disclosure of CHAKRABARTI et al. does not remedy the deficiencies set forth above with respect to the disclosure of CONKLIN et al. Accordingly, Applicants submit that claims 3-5 are patentable over CONKLIN et al. and CHAKRABARTI et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 1. Moreover, these claims recite additional features that are neither disclosed nor suggested by CONKLIN et al. and CHAKRABARTI et al.

For example, claim 3 recites determining whether any of the one or more objects relates to a list of favored and non-favored sources. The Examiner admitted that CONKLIN et al. does not disclose this feature and relied on col. 1, lines 30-50, of CHAKRABARTI et al. for allegedly disclosing the feature (final Office Action, pg. 5). More specifically, the Examiner alleged that "favored reads on example pages and non-favored sources reads on stop pages" (final Office Action, pg. 5). Applicants submit that the Examiner has mischaracterized the CHAKRABARTI et al. disclosure.

Col. 1, lines 30-50, of CHAKRABARTI et al. discloses:

In further detail, the method features steps for enabling a user to interactively define a frame-based, hierarchical information structure for cataloging information, and, steps for identifying information elements to populate respective frames of the structure by iteration, the iteration including steps for: identifying a preliminary population of information elements with the use of a search query based on respective frame attributes, frame attributes selectively including classification designations, example pages, stop pages and/or control parameters used by

conventional search engines, as required; supplementing preliminary population based on usage of example pages and/or stop pages; expanding the supplemented preliminary population to include related information; automatically filtering and computing information element ranking based on degree of relevance to the respective frame; and, thereafter, refining the identification with successive iterations of the steps described until identification is deemed complete, whereupon the hierarchical structure is populated with a user-defined portion of preferred information elements identified.

This section of CHAKRABARTI et al. discloses that a hierarchical information structure may be populated by a user through the use of a search query that includes, *inter alia*, example pages and stop pages. Assuming, as alleged by the Examiner, that CHAKRABARTI et al.'s example pages and stop pages correspond to favored and non-favored sources, respectfully, Applicants submit that CHAKRABARTI et al. does not disclose or suggest determining whether any of the retrieved one or more objects relates to a list of example pages and stop pages. To the contrary, CHAKRABARTI et al. merely discloses that a search query may include example pages and stop pages to supplement an initial set of pages retrieved in response to the search query.

For at least these additional reasons, Applicants submit that claim 3 is patentable over CONKLIN et al. and CHAKRABARTI et al., whether taken alone or in any reasonable combination.

Independent claim 11 recites developing one or more query themes, identifying, for each query theme, a first set of objects as favored objects, identifying, for each query theme, a second set of objects as non-favored objects, and determining an editorial opinion parameter for each of the objects in the first and second sets. Applicants submit

that CONKLIN et al. and CHAKRABARTI et al., whether taken alone or in any reasonable combination, do not disclose this combination of features.

For example, CONKLIN et al. and CHAKRABARTI et al. do not disclose developing one or more query themes. The Examiner relied on col. 3, lines 25-30, and col. 4, lines 1-8, of CONKLIN et al. for allegedly disclosing this feature (final Office Action, pg. 7). Applicants submit that these sections of CONKLIN et al. do not disclose or suggest the recited feature.

As set forth above, col. 3, lines 25-30, of CONKLIN et al. discloses that an information retrieval system processes a query by selecting a plurality of documents relevant to the query and then selecting one or more themes from the documents. This section of CONKLIN et al. does not disclose developing one or more query themes, but merely that one or more themes are selected from documents.

Col. 4, lines 1-8, of CONKLIN et al. discloses, as set forth above, that for theme queries, a content processing system 110 analyzes the terms in the theme query to generate a query theme vector. CONKLIN et al. discloses that a theme vector identifies themes for each individual document, as well as a theme strength corresponding to each theme (col. 4, lines 40-43). Therefore, it is apparent that a theme vector is not a query theme, but rather contains themes. CONKLIN et al. does not disclose or suggest developing one or more query themes.

The Examiner further alleged with respect to this feature that element 212 (Identify Themes for the Document Hit-list) in Fig. 2 of CONKLIN et al. "implies developing" (final Office Action, pg. 7). Applicants disagree.

CONKLIN et al. discloses that each document in a document hit-list includes one or more themes or topics (col. 6, lines 11-14). To identify the themes for the documents in the hit list, CONKLIN et al. discloses that query feedback processing 185 accesses the document theme vector 160 to extract the topics and themes for each document in the document hit list (col. 6, lines 15-19). One skilled in the art will appreciate that identifying themes from a document theme vector 160 associated with a document is different than developing one or more query themes. The Examiner has failed to point to any section of CONKLIN et al. that discloses this feature of Applicants' claim 11.

CONKLIN et al. and CHAKRABARTI et al. do not further disclose identifying, for each query theme, a first set of objects as favored objects and a second set of objects as non-favored objects, as also recited in claim 11. The Examiner admitted that CONKLIN et al. does not disclose these features and alleged that CHAKRABARTI et al.'s example authorities and stop pages correspond to the recited favored and non-favored objects, respectively (final Office Action, pp. 7-8). Applicants submit that the Examiner has mischaracterized the disclosure of CHAKRABARTI et al.

CHAKRABARTI et al. discloses that when a search query specifies example authorities, these pages are added to supplement an initial set of pages retrieved in response to the search query (see, for example, col. 26, lines 49-55). When the search query specifies stop pages, the initial set of pages is supplemented by deleting the specified stop pages (col. 26, lines 55-63). CHAKRABARTI et al. does not disclose or suggest identifying, for each query theme, a first set of objects as example authorities and a second set of objects as stop pages. To the contrary, CHAKRABARTI et al. merely

discloses the ability to supplement a search query by including example authorities and stop pages in the search query.

For at least the foregoing reasons, Applicants submit that claim 11 is patentable over CONKLIN et al. and CHAKRABARTI et al., whether taken alone or in any reasonable combination.

Claims 12-19 depend from claim 11. Therefore, Applicants submit that these claims are patentable over CONKLIN et al. and CHAKRABARTI et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 11. Moreover, these claims recite additional features not disclosed by CONKLIN et al. and CHAKRABARTI et al.

For example, claim 12 recites features similar to those given above with respect to claim 6. Accordingly, Applicants submit that claim 12 is patentable over CONKLIN et al. and CHAKRABARTI et al., whether taken alone or in any reasonable combination, for similar reasons to those set forth above with respect to claim 6.

Independent claims 20 and 21 recite features similar to those described above with respect to claim 11. Therefore, Applicants submit that claims 20 and 21 are patentable over CONKLIN et al. and CHAKRABARTI et al., whether taken alone or in any reasonable combination, for reasons similar to those given above with respect to claim 11.

Claim 22 depends from claim 21. Accordingly, Applicants submit that this claim is patentable over CONKLIN et al. and CHAKRABARTI et al., whether taken alone or

in any reasonable combination, for at least the reasons given above with respect to claim 21.

New claim 23 recites a server that comprises a memory configured to store a plurality of query themes, information identifying, for each of the plurality of query themes, at least one favored or non-favored item associated with the query theme, and an editorial parameter associated with each favored and non-favored item, and a processor. The processor is configured to receive a search query comprising one or more terms, retrieve items using the one or more terms, determine a score for each of the retrieved items, and identify one of the plurality of query themes as matching the search query. The processor is further configured to determine, for each of the retrieved items, whether the retrieved item is associated with one of the favored or non-favored items associated with the one query theme, and adjust, for each of the retrieved items, the score of the retrieved item when the retrieved item is determined to be associated with a favored or non-favored item. CONKLIN et al. and CHAKRABARTI et al., whether taken alone or in any reasonable combination, do not disclose or suggest this combination of features.

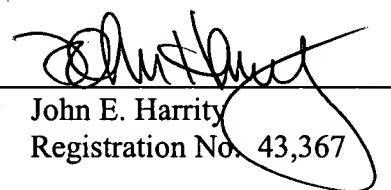
In view of the foregoing amendment and remarks, Applicants respectfully request the Examiner's reconsideration of this application, and the timely allowance of the pending claims.

PATENT
U.S. Patent Application No. 09/734,887
Attorney Docket No. 0026-0004

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1070 and please credit any excess fees to such deposit account.

Respectively submitted,

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